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IAPS Rec'd PCT/PTO 30 DEC 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Inventors: Yutaka MURAKAMI, et al.

Application No.: New PCT National Stage Application

Filed: December 30, 2005

For: COMMUNICATION APPARATUS AND COMMUNICATION METHOD

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner of Patents  
Washington, DC 20231

Dear Sir:

Pursuant to Rules 56 and 99, Applicants hereby call the attention of the Patent Office to the art listed on the attached Form PTO 1449. Copies of the art cited in the International Search Report (ISR), which issued by the JPO, are made available to the U.S. examiner in the national stage application, pursuant to MPEP 1893.03(g), and therefore copies of such art are not submitted herewith. The art cited in the ISR is listed on the attached PTO-1449 for an indication of consideration by the examiner. Copies of any other references listed on the PTO-1449, besides those cited in the ISR, are submitted herewith. The following documents are discussed in the present application: "TAROKH et al.," page 2, line 1 et seq., "ALAMOUTI," page 24, line 5 et seq., "YUDA et al.," page 158, line 21 through page 159, line 1, et seq., "UNGERBOECK," page 165, line 11 et seq. and "MIYASHITA," page 171, line 2 et seq.

Applicants present this art so that the Patent Office may, in the first instance, determine any relevancy thereof to the presently claimed invention, see Beckman Instruments, Inc. v. Chemtronics, Inc., 439 F.2d 1369, 1380, 165 USPQ 355, 364 (5th Cir. 1970). Also see Patent Office Rules 104 and 106.

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Applicants respectfully request that this art be expressly considered during the prosecution of this application and made of record herein and appear among the "References Cited" on any patent to issue herefrom.

Respectfully submitted,

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Date: December 30, 2005

JEL/spp

ATTORNEY DOCKET NO. L9289.05197

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FORM PTO-1449 U.S. Department of Commerce (Rev. 4/92) Patent and Trademark Office	ATTY. DOCKET NO.	SERIAL NO. 311362932
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use several sheets if necessary)	L9289.05197	<b>New PCT Nat'l Stage Application</b>
	APPLICANT	Yutaka MURAKAMI, et al.
	FILING DATE	GROUP
December 30, 2005	Unassigned	

## **U.S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

PCT International Search Report dated December 7, 2004.

J. KATSUMOTO, et al.: "MIMO Channel ni Okeru Tekio Hencho o Mochiita SDM-OFDM System," May 16, 2003, The Institute of Electronics, Information and Communication Engineers Gijutsu Kenkyu Hokoku, vol. 103, no. 66, pp. 75-82.

V. TAROKH, et al.: "Space-Time Block Codes from Orthogonal Designs," *IEEE Transactions on Information Theory*, vol. 45, no. 5, July 1999, pp. 1456-1467.

S. ALAMOUTI: "A Simple Transmit Diversity Technique for Wireless Communications," IEEE Journal on Select Areas in Communications, vol. 16, no. 8, Oct. 1998, pp. 1451-1458.

Y. MURAKAMI, et al., "Performance Analysis of MIMO Systems Under Rician Fading Channels," Technical Report of IEICE, NS2003-67, RCS2003-90, July 2003, The Institute of Electronics, Information and Communications Engineers, pp. 1-6 with English Abstract.

G. UNGERBOECK, "Channel Coding with Multilevel Pulse Signals," IEEE Transactions on Information Theory, vol. IT-28, no. 1, January 1982, pp. 55-67.

R. MITASHIMA, et al.: Eigenbeam-Space Division Multiplexing (ESDM) in a MMIC Channel, Technical Report of IEICE, RCS2002-53, May 2002, The Institute of Electronics, Information and Communication Engineers, pp. 13-18.

**EXAMINER:** Initial if citation is considered, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.